

## **December 2010 Weather in Review**

Dry conditions since October continued increasing the dryness across South Central Texas in December 2010. Little or no rain fell from the 1st to the 20th, followed by brief rain events the 24th and the 28th to the early morning of the 29th, as the storm track migrated further south. The most rain in December fell with a line of showers and thunderstorms on a spring like day Friday, December 24th. The rainfall in late December brought only brief relief from the dry conditions, as December finished with rainfall below average and a quick return to very dry conditions the 30th and 31st. October to December 2010 was a tie for the 2nd driest October to December at Del Rio with October to December of 1950; the 4th driest October to December at Austin Mabry from 1856 to 2010; the 5th driest at San Antonio from 1871 to 2010; and the 5th driest at Austin Bergstrom from 1942 to 2010.

The driest October to December periods are listed below for Austin, Del Rio and San Antonio.

Del Rio had 0.04 inches of rain from October through December 2010, 3.67 inches below the 30 Year Normal of 3.71 inches of rain. This tied with 1950 for the 2nd driest October to December of record at Del Rio.

For Del Rio the driest October to December rainfall from 1906 through 2010 is listed below.

1. 0.03 October to December 1917
2. 0.04 October to December 1950 and 2010
3. 0.16 October to December 1915
4. 0.18 October to December 1970
5. 0.40 October to December 1999

Austin Mabry had 1.55 inches of rain from October through December, 7.74 inches below the 30 year Normal of 9.29 inches of rain. This was 4th driest October to December at Austin Mabry.

For Austin Mabry the driest October to December rainfall from 1856 through 2010 is listed below.

1. 0.62 October to December 1950
2. 1.08 October to December 1886
3. 1.30 October to December 1894
4. 1.55 October to December 2010
5. 1.58 October to December 1966
6. 1.59 October to December 1924

Austin Bergstrom had 1.78 inches of rain from October through December, 7.76 inches below the 30 year Normal of 9.54 inches of rain. This was the 5th driest October to December of record at Austin Bergstrom.

For Austin Bergstrom the driest October to December rainfall from 1942 through 2010 is listed below.

1. 0.53 October to December 1950
2. 0.97 October to December 1947
3. 1.55 October to December 1951
4. 1.69 October to December 2008

5. 1.78 October to December 2010

6. 2.12 October to December 1954

San Antonio had 1.06 inches of rain from October through December 2010, 7.34 inches below the October to December 30 Year Normal of 8.40 inches. This was the 5th driest October to December of record at San Antonio.

For San Antonio the driest October to December rainfall from 1871 through 2010 is listed below.

1. 0.24 October to December 1950

2. 0.52 October to December 2008

3. 0.91 October to December 1901

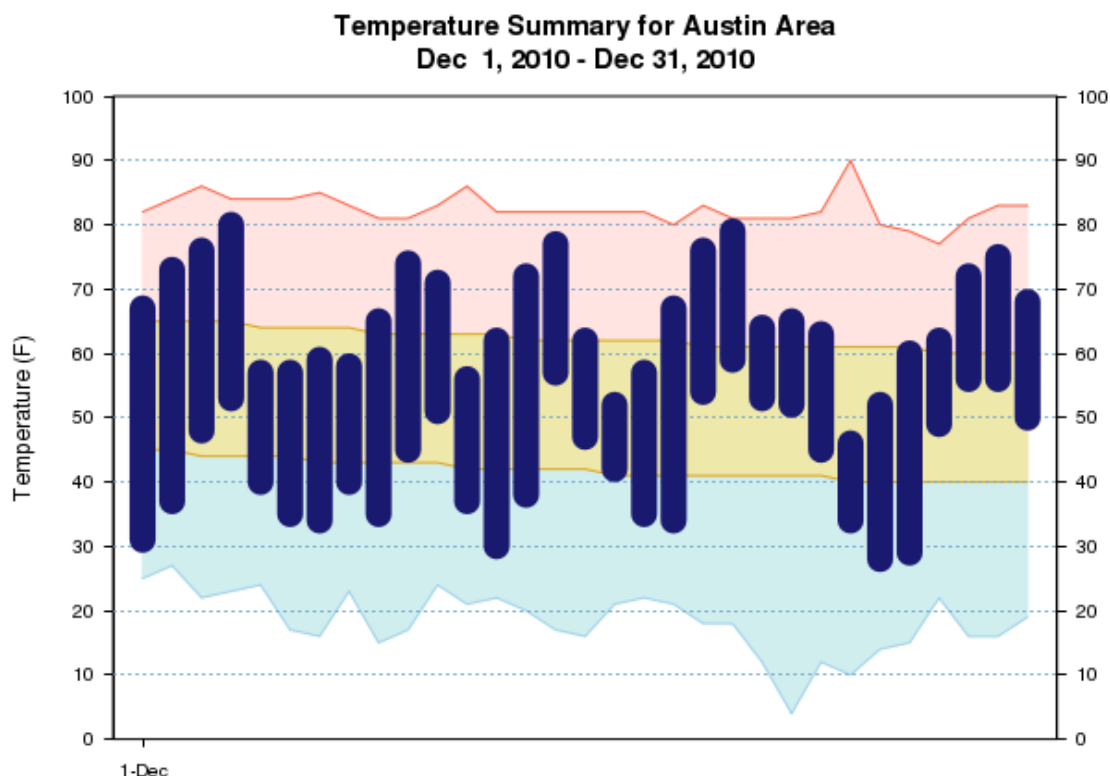
4. 0.93 October to December 1894

5. 1.06 October to December 2010

6. 1.14 October to December 1995

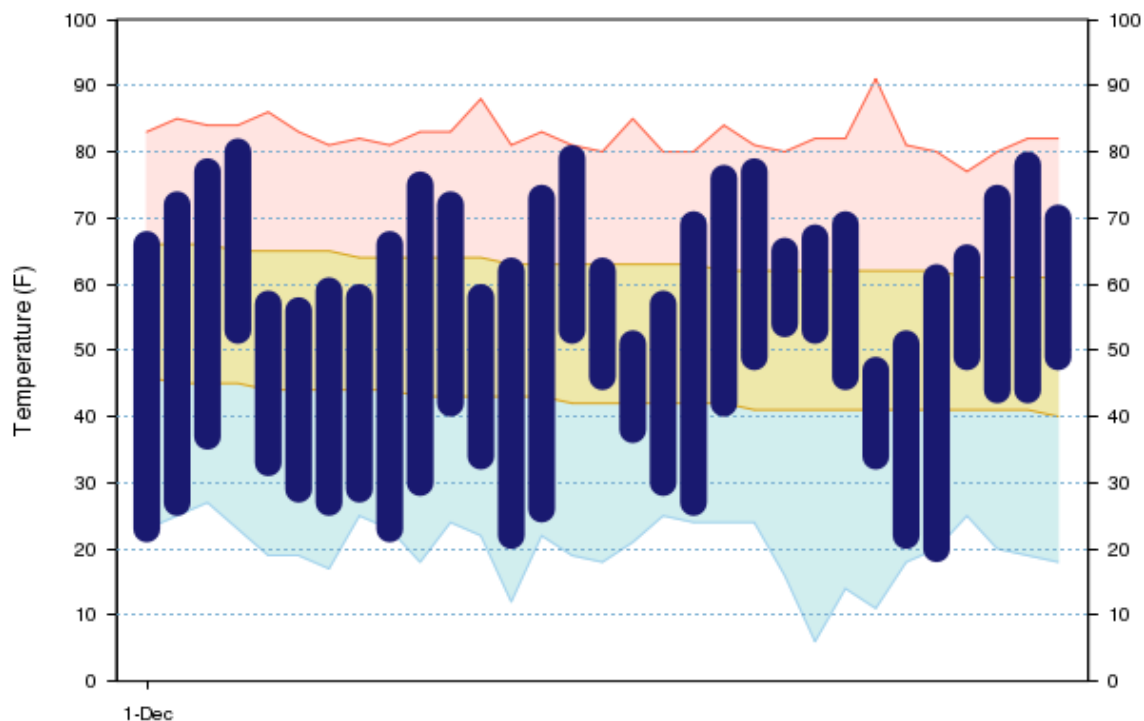
The average temperature for December was slightly warmer than usual at most locations. South Central Texas was on the western fringe of the colder than usual conditions that affected the eastern U.S. In what usually would have been a much warmer December during most La Nina years, with more extremes from warm to cold, more frequent cold fronts shortened warming trends, limiting the extremes from warm to cold, that were more pronounced from late October through November 2010.

The charts below show the daily temperature trends for December 2010 at Austin, Del Rio, and San Antonio.



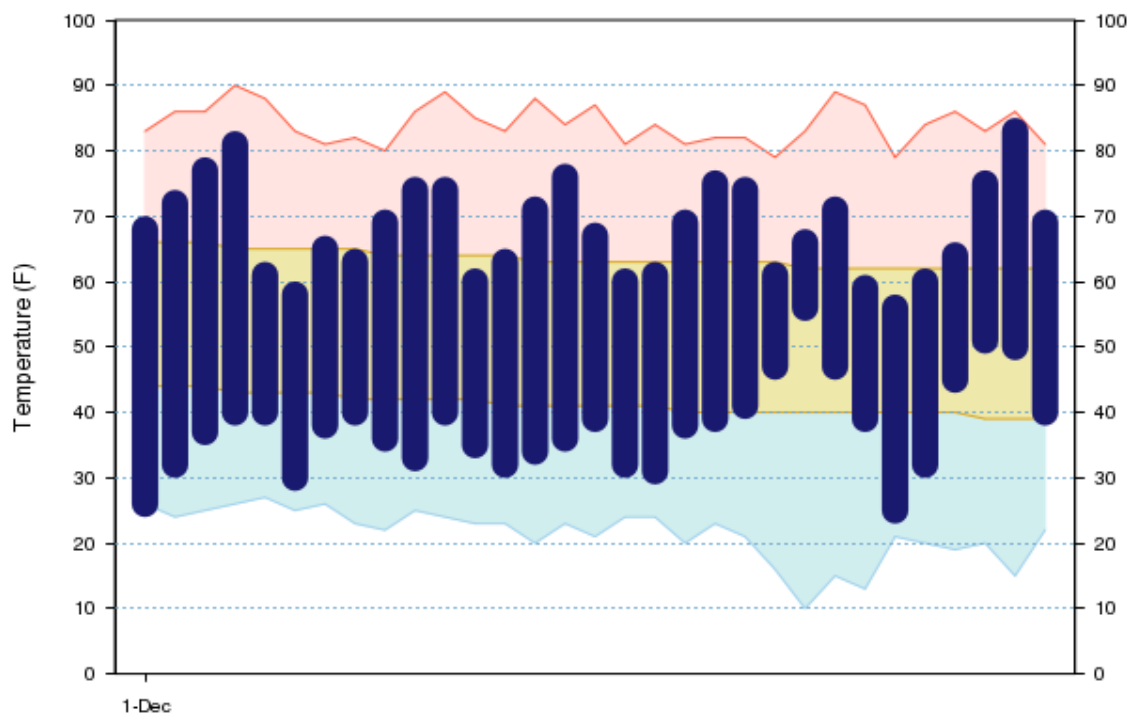
Observed daily maximum and minimum temperatures are connected by dark blue bars.  
Area between normal maximum and minimum temperatures has tan shading.  
Red line connects record high temperatures. Light blue line connects record low temperatures.

### Temperature Summary for Austin-Bergstrom Airport Area Dec 1, 2010 - Dec 31, 2010



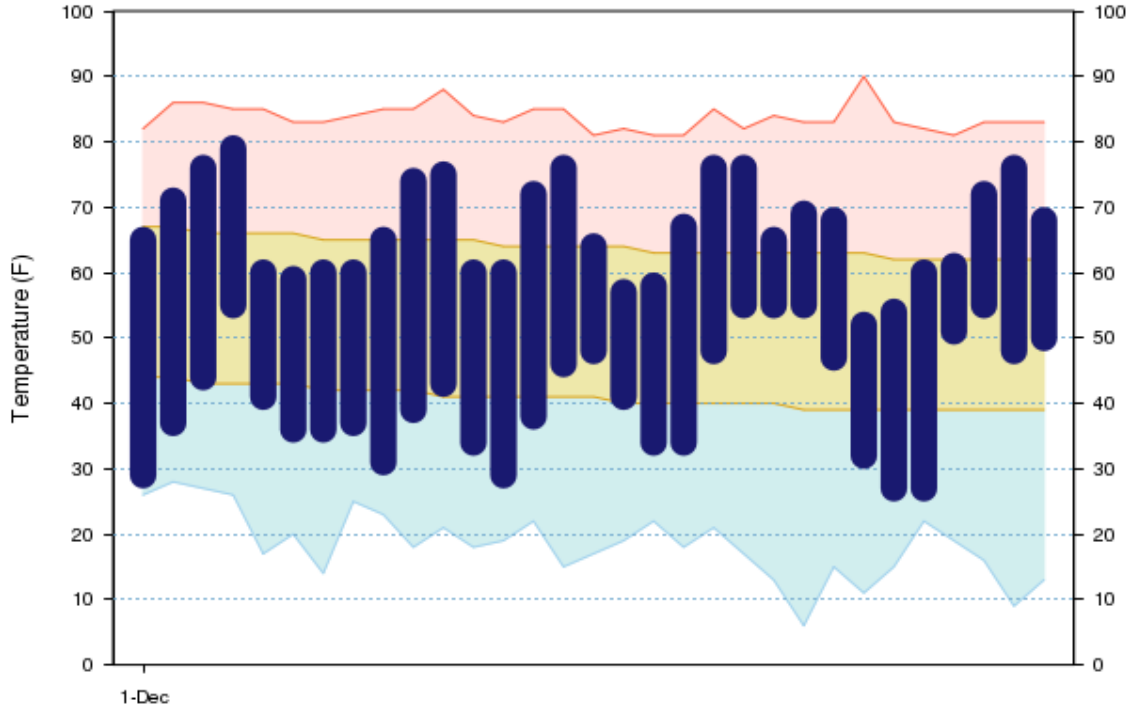
Observed daily maximum and minimum temperatures are connected by dark blue bars.  
Area between normal maximum and minimum temperatures has tan shading.  
Red line connects record high temperatures. Light blue line connects record low temperatures.

### Temperature Summary for Del Rio Area Dec 1, 2010 - Dec 31, 2010



Observed daily maximum and minimum temperatures are connected by dark blue bars.  
Area between normal maximum and minimum temperatures has tan shading.  
Red line connects record high temperatures. Light blue line connects record low temperatures.

### Temperature Summary for San Antonio Area Dec 1, 2010 - Dec 31, 2010



Observed daily maximum and minimum temperatures are connected by dark blue bars.  
Area between normal maximum and minimum temperatures has tan shading.  
Red line connects record high temperatures. Light blue line connects record low temperatures.

December began with a freeze in the early morning hours of the 1st, in wake of the cold front on November 29th. A warming trend the afternoon of the 1st to the 4th brought highs into the 70s the 2nd and 3rd, and in the 70s to low 80s the 4th. Some of the warmest highs of the month came on the 4th, then later on the 21st and for a few locations on the 30th. Unseasonably warm conditions the 4th was followed by cooler weather the 5th to the 8th. A cold front the night of the 7th to early morning on the 8th maintained dry and cool conditions the 8th. A brief warming trend the 9th to the 11th ended during the day on the 11th, as cooler conditions came with another cold front. After a freeze the morning of the 13th, a brief warming trend the 14th and 15th was followed by a fast moving cold front the 16th. This increased the dryness more across South Central Texas. Cooler days the 17th and 18th were replaced by warmer days the 19th to the 21st. Even though December 21st, was the first day of winter, highs on the 21st were almost as warm as the 4th, and for a few places the 21st was the warmest day of the month, along with the 30th. A cooler day the 22nd was followed by a brief warming trend the 23rd to the 24th. A fast moving disturbance and cold front brought a line of showers and thunderstorms across South Central Texas on Friday the 24th. A spring like day with showers and thunderstorms the 24th turned to a clear and cold winter like day the 25th, with highs in the 40s and 50s. A widespread freeze the 26th and 27th brought the coldest early morning lows for December 2010. Cloudy conditions with light rain and showers came the 28th through the early morning of the 29th. A brief warming trend the afternoon of the 29th and on the 30th, ended with a cold front on the 31st. The high of 83 at Del Rio the 30th was the warmest day of December at Del Rio, while the high of 81 at San Antonio Stinson was just as warm as the 4th

and 21st. The cold front the 31st brought dry north winds in the day and mild temperatures.

December 2010 was the 3rd driest December at Del Rio from 1905 to 2010 with 0.02 inches of rain; the 20th driest at Austin Bergstrom from 1943 to 2010 with 0.80 inches of rain; the 28th driest at Austin Mabry from 1856 to 2010 with 0.79 inches of rain; and the 27th driest at San Antonio from 1871 to 2010 with 0.63 inches of rain. The most rain in December 2010 across South Central Texas was over the east part of the area, yet still below average for December.

Year 2010 rainfall was wetter than usual from January to July, became dry in August, wet in September, and then very dry from October to December. At Del Rio 2010 was the 8th wettest year with 29.80 inches of rain, 11 inches above average. At San Antonio 2010 was the 27th wettest year from 1871 to 2010 with 37.39 inches of rain, 4.47 inches above normal. At Austin Mabry 2010 was the 28th wettest year from 1856 to 2010 with 37.76 inches of rain, 4.11 inches above normal. At Austin Bergstrom 2010 was in 43rd place from the wettest year from 1943 to 2010, with 28.42 inches of rain, 6.30 inches below normal.